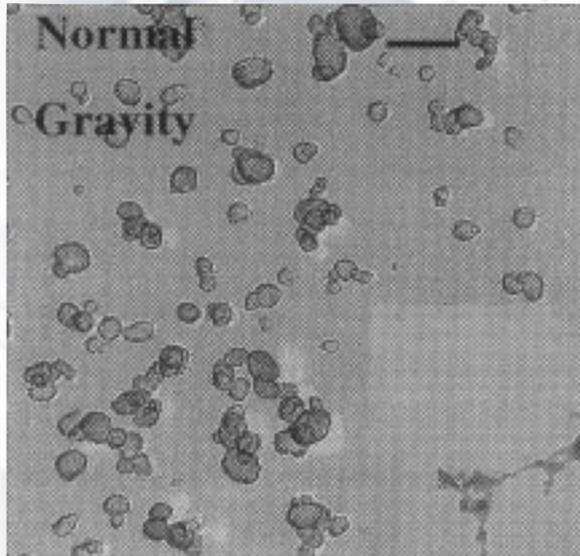




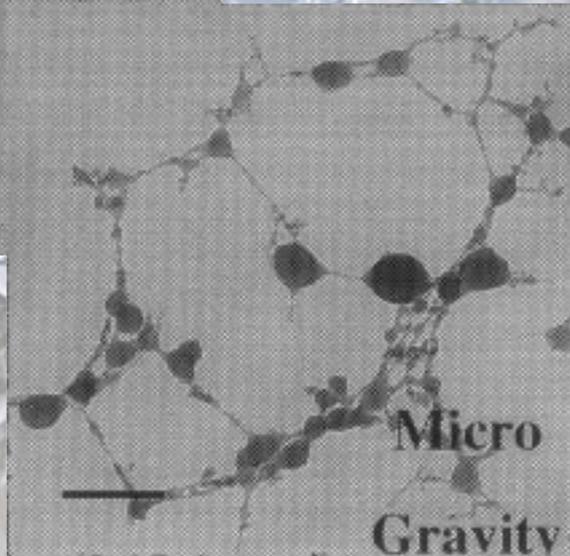
Glenn Research Center



Ultrafine Particles: Normal vs. Microgravity



Bar = 500 nm



PTFE
Red Wire
Insulation

- ◆ Gravity plays a key role in particle size and morphology.
- ◆ Generally, microgravity favors larger particles.
- ◆ Filamentous structures are common in μg .
- ◆ Larger particle sizes *should* decrease the smoke inhalation danger on spacecraft.
- ◆ Pigment plays a larger role than gravity in particle size and morphology.
- Polymers can be formulated to reduce inhalation hazard.

Combustion of PTFE: McKinnon, Srivastava, and Todd/CSM and CU